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EXAMINER

HINZE, LEO T

ART UNIT

PAPER NUMBER

2854

DATE MAILED: 03/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/771,105

Applicant(s)

WIESE, DENNIS R.

Examiner

Leo T. Hinze

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 1/23/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 14-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 14-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01/26/01 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 2, 6, 9, and 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dufour et al. in view of Rebel et al.

Dufour teaches:

- a method, comprising the steps of: printing with a printing unit (1) having adjacent, rotating ink rollers (2,3), said ink rollers having a central print area and terminal non-print areas (e.g. col. 1, lines 46-47), by applying ink to a first ink roller, the ink being transferred to the print areas and non-print areas of successive adjacent rollers and finally printed in an image on a paper substrate (claim 1);
- that ink build-up in non-print areas of ink rollers of a printing press during printing is problematic (e.g. col. 1, lines 45-55), and suggests a solution of scraping one of a plurality of ink rollers with blades (7) to remove excess ink;
- using the method for lithographic printing (e.g. co. 1, line 57) (claim 9);

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- a printing apparatus, comprising: at least one printing unit having adjacent ink rollers, said ink rollers having terminal non-print areas (claim 14).

Dufour does not teach:

- delivering a tack reducing solvent at a pre-determined rate to the print areas of a second ink roller, wherein the tack-reducing solvent is transferred from the non-print areas of the second ink roller to the non-print areas of successive adjacent ink rollers, and further when the rate is sufficient to prevent increase in ink tack in the non-print areas (claim 1);
- pumping the tack-reducing solvent from a reservoir (claim 2);
- wherein a solvent line carries the tack-reducing solvent from the reservoir and the tack-reducing solvent passes through an aperture in the solvent line onto the non-print areas of the second ink roller (claim 6);
- a solvent delivery system for delivering a tack-reducing solvent to the non-print areas of at least one ink roller at a rate sufficient to prevent increase in ink tack during printing in the non-print areas of said at least one ink roller and successive adjacent ink rollers (claim 14);
- wherein said solvent delivery system comprises a solvent line for moving the solvent to the non-print areas of the at least one ink roller and apertures in the solvent line to deliver the solvent to said non-print areas (claim 15);
- wherein the solvent delivery system further comprises a reservoir for containing the solvent from which reservoir the solvent line receives the solvent (claim 16);

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- wherein the solvent delivery system comprises a pump for pumping the solvent from the reservoir (claim 17);
- wherein the solvent delivery system further comprises a controller (Rebel, 9) for adjusting the rate of delivery of solvent to the non-print area (claim 18);
- wherein the solvent line has at least two spaced apertures that can be opened and closed each end of said at least one ink roller (claim 19).

Rebel teaches:

- applying a solvent to the terminal non-format areas of rollers (e.g. col. 1, lines 52-57) of a printing press during printing (e.g. col. 2, lines 51-52) through spray means (2) to replenish solvent lost to evaporation, and thereby prevent a substance from drying and eventually hardening (claim 1);
- roller side zones can be kept clear of surplus substances for small-format work by being scraped with blades, although such scraping does not give 100% removal (e.g. col. 1, lines 39-41);
- pumping the tack-reducing solvent from a reservoir ("non-pressureless construction", col. 3, line 38) (claim 2);
- wherein a solvent line (14) carries the tack-reducing solvent from the reservoir (10) and the tack-reducing solvent passes through an aperture (8) in the solvent line onto the non-print areas of the second ink roller (claim 6);
- a solvent delivery system for delivering a solvent to the non-print areas of at least one roller at a rate (e.g. col. 2, lines 52-54) sufficient to replenish solvent lost to evaporation,

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and thereby prevent the material from drying and subsequently becoming sticky or tacky, and eventually hardening (claim 14);

- wherein said solvent delivery system comprises a solvent line (14) for moving the solvent to the non-print areas of the at least one roller and apertures (2) in the solvent line to deliver the solvent to said non-print areas (claim 15);
- wherein the solvent delivery system further comprises a reservoir (10) for containing the solvent from which reservoir the solvent line receives the solvent (claim 16);
- wherein the solvent delivery system comprises a pump for pumping the solvent from the reservoir (“non-pressureless construction”, col. 3, line 38) (claim 17);
- wherein the solvent delivery system further comprises a controller (9) for adjusting the rate of delivery of solvent to the non-print area (claim 18);
- wherein the solvent line has at least two spaced apertures (2) that can be opened and closed (e.g. col. 2, lines 9-10) each end of said at least one roller (claim 19).

Regarding claim 1, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Dufour to add the solvent delivery system of Rebel, because Rebel teaches that scraping the roller side zones is not 100% effective at removing material. Once the solvent application system of Rebel is combined with the ink scraping system of Dufour, any ink remaining in the non-print areas of the roller train due to the scraping being less than 100% effective will have solvent applied in a manner that prevents the ink from becoming tacky due to loss of solvent. Because of the construction of the roller train, with

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contacting adjacent ink rollers, any substance on one roller will be transferred to subsequent rollers.

Further regarding claim 1, one having ordinary skill in the art would recognize the equivalency with respect to the methods of applying varnish to paper and applying ink to paper, as both the varnish and ink can be applied to the paper in a similar manner with the purpose of coating the paper.

Further regarding claim 1, one having ordinary skill in the art would recognize that while Rebel applies varnish through the damping unit, the method and apparatus are equally suitable for use with a printing unit, or even a separate varnishing unit, so long as the application unit has a roller structure similar to that described in Rebel.

Further regarding claim 1, one having ordinary skill in the art would recognize the mechanisms by which varnish dries and ink becomes tacky are due to evaporation of solvent from the solution, and that replenishing the solvent at a rate greater than that at which it evaporates will prevent drying or tackiness.

Regarding claim 14, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Dufour to add a solvent delivery system for delivering a tack-reducing solvent to the non-print areas of at least one ink roller at a rate sufficient to prevent increase in ink tack during printing in the non-print areas of said at least one ink roller and successive adjacent ink rollers, because Rebel teaches that scraping the roller side zones is not 100% effective at removing material.

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Regarding claims 2, 6, and 15-19, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Dufour to add the solvent delivery system of Rebel and include a pump, reservoir, apertures, and solvent line, because Rebel teaches that scraping the roller side zones is not 100% effective at removing material, and that a pump, reservoir and solvent line are desirable components for such a solvent delivery system.

Regarding claim 9, the combination of Dufour and Rebel teaches all that is claimed as discussed above.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dufour et al. in view of Rebel et al. as applied to claim 1 above, and further in view of Huebner.

The combination of Dufour and Rebel teaches all that is claimed as discussed in the above rejection of claim 1, except wherein the pre-determined rate is adjusted according to the printing rate.

Huebner teaches an apparatus for spraying fluid onto an ink roller (8) of a printing press, wherein the rate of spraying is adjusted in accordance with the speed at which the press is operated (e.g. col. 1, lines 39-40).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Dufour wherein the pre-determined rate is adjusted according to the printing rate, because Huebner teaches that correlation between liquid supply rate and printing rate ensures the required amount of liquid is delivered to the printing machine.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dufour et al. in view of Rebel et al. as applied to claim 2 above, and further in view of Takekoshi.

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The combination of Dufour and Rebel teaches all that is claimed as discussed in the above rejection of claim 2, except wherein a sensor signals when to add more tack-reducing solvent to the reservoir.

Takekoshi teaches a method of automatically replenishing dampening fluid in a printing press, wherein a sensor (22, 28) signals when to add more liquid to the reservoir (12, 26) (e.g. col. 6, lines 42-45).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Dufour to include level sensors to signal when to add more solvent to the reservoir, as Takekoshi teaches that it is desirable to have level sensors signal when the level of the reservoir is too low.

5. Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dufour et al. in view of Rebel et al. as applied to claim 1 above, and further in view of Stein et al.

Dufour and Rebel together teach all that is claimed as discussed in the above rejection of claim 1, including:

- increasing the rate of delivery of the tack reducing solvent (e.g. Rebel col. 4, lines 11-14) (claim 5);
- closing the aperture in the solvent line and opening a second aperture in the solvent line for solvent to pass onto the non-print areas closer to the edges of the second paper substrate (Rebel, e.g. col. 4, lines 23-25) (claim 7).

Dufour and Rebel do not teach replacing the paper substrate of step (a) with a second paper substrate having a narrower width (claims 5 and 7).

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Stein teaches replacing the paper substrate of step (a) with a second paper substrate having a narrower width (e.g. col. 4, lines 50-57) (claims 5 and 7).

With regard to claims 5 and 7, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Dufour to replace the paper substrate of step (a) with a second paper substrate having a narrower width, because Stein teaches that it is sometimes desirable to use paper with a narrower width to print smaller format material, in order to print a product comprising a reduced number of pages.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dufour et al. in view of Rebel et al. as applied to claim 1 above, and further in view of Blim.

Dufour and Rebel together teach all that is claimed as discussed in the above rejection of claim 1, except wherein the tack-reducing solvent comprises a member selected from the group consisting of water, glycols, glycol ethers, aliphatic hydrocarbons, petroleum distillate fractions, normal and isoparaffinic solvents, and combinations thereof.

Blim teaches spraying an ink solvent on the surfaces of printing cylinders, the solvent being a variety of fluids, including water.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Dufour to use water as a tack-reducing solvent, because Blim teaches that water is an ink solvent.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dufour et al. in view of Rebel et al. as applied to claim 1 above, and further in view of De Marchi et al.

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Dufour and Rebel together teach all that is claimed as discussed above, except wherein the paper substrate is a super calendered paper.

De Marchi teaches printing with super calendered (e.g. col. 1, line 25) paper.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Dufour to print with super calendered paper, because De Marchi teaches that super-calendered paper has desirable properties that produce good quality printed material.

Response to Arguments

8. Applicant's arguments filed on 23 January, 03 have been fully considered but they are not persuasive.

9. In response to applicant's argument of rejection under 35 U.S.C. § 103(a) over Dufour et al. in view of Rebel et al. that the Rebel patent is not concerned with an ink roller or adjacent ink rollers, and only mentions dampener rollers, Rebel is concerned with "roller type varnishing systems" (col. 1, lines 7-8). While Rebel uses the dampening unit to apply the varnish, one having ordinary skill in the art would recognize that the method and apparatus are equally suitable for use with a printing unit, or a separate varnishing unit, so long as the application unit has a roller structure as described in the dampener unit of Rebel.

10. In response to applicant's argument of rejection under 35 U.S.C. § 103(a) over Dufour et al. in view of Rebel et al. that the Rebel patent is not concerned with increase in ink tack, or applying tack reducing solvent, the Rebel patent is concerned with applying solvent to a mixture, in this case varnish, during printing, to replenish solvent lost to evaporation, and thereby prevent

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drying and eventually hardening. One having ordinary skill in the art would recognize the mechanisms by which varnish dries and ink becomes tacky are due to evaporation of solvent from the solution, and that replenishing of the solvent at a rate greater than that at which it evaporates will prevent drying or tackiness. Further, one having ordinary skill in the art would recognize the equivalency with respect to the methods of applying varnish to paper and applying ink to paper, as both the varnish and ink can be applied to the paper in a similar manner with the purpose of coating the paper

11. In response to applicant's argument of rejection under 35 U.S.C. § 103(a) over Dufour et al. in view of Rebel et al. that the Dufour and Rebel patents do not speak of the problems of web breakage or sheet jamming, it is noted that the problems of web breakage or sheet jamming are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

12. In response to applicant's argument of rejection under 35 U.S.C. § 103(a) over Dufour et al. in view of Rebel et al. that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). While the examiner agrees that neither Dufour or Rebel specifically teach using their methods

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and apparatus for reducing the tack of the ink, there is motivation to combine both references as described in the above rejection of claim 1, said combination providing for a method that does reduce the tack of the ink. The reason or motivation to modify a reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant.

13. In response to the applicant's argument of rejection under 35 U.S.C. § 103(a) over Dufour et al. in view of Rebel et al. that the combination of the Rebel reference eradicates the Dufour scraper blade, and that there is no motivation in Dufour to "modify" its system, it should be noted that the combination of Rebel with Dufour does not necessarily eradicate the scraper blade of Dufour, and that the motivation for combining Dufour and Rebel comes from the Rebel teaching that scraping is not 100% effective.

14. In response to applicant's argument of rejection under 35 U.S.C. § 103(a) over Dufour et al. in view of Rebel et al. that there is no suggestion to combine Dufour and Rebel, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Rebel teaches that the scraping blade of Dufour "does not give 100% removal."

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15. In response to applicant's argument of rejection under 35 U.S.C. § 103(a) over Dufour et al. in view of Rebel et al. that neither the Dufour patent nor the Rebel patent provides any inkling of the unexpected benefits that flow from the invention, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

16. In response to applicant's argument of rejection of claims 2, 6, 17, and 18 under 35 U.S.C. § 103(a) over Dufour et al. in view of Rebel et al and Switall, that Switall must suggest all that is lacking from the two references, it is the examiner's position that the Dufour and Rebel patents together teach all that is claimed as discussed in the above rejections of claims 1, 2, 6, 9, and 14-19.

17. In response to applicant's argument of rejection of claim 3 under 35 U.S.C. § 103(a) over Dufour et al. in view of Rebel et al and Huebner, that Huebner does not provide the motivation of the teachings absent in the Dufour and Rebel references, it is the examiner's position that the Dufour and Rebel references together teach all that is claimed as discussed in the rejection of claim 1. Further, Huebner is analogous art to the Dufour and Rebel patents because it teaches spraying fluid onto rollers of a printing machine, and is therefore acceptable as a secondary reference to further modify the combination of Dufour and Rebel.

18. In response to applicant's argument of rejection of claim 4 under 35 U.S.C. § 103(a) over Dufour et al. in view of Rebel et al and Takekoshi, that Takekoshi does not provide the motivation, expectation of results, or teaching of the aspects of the present invention that are

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lacking in the first two patents, it is the examiner's position that the Dufour and Rebel patents together teach all that is claimed as discussed in the above rejection of claim 2.

19. In response to applicant's argument of rejection of claims 5 and 7 under 35 U.S.C. § 103(a) over Dufour et al. in view of Rebel et al and Stein, that Stein does not provide the motivation, expectation of results, or teaching of the aspects of the present invention that are lacking in the first two patents, it is the examiner's position that the Dufour and Rebel patents together teach all that is claimed as discussed in the above rejection of claim 2.

20. In response to applicant's argument of rejection of claim 8 under 35 U.S.C. § 103(a) over Dufour et al. in view of Rebel et al and Blim, that Blim does not mention any motivation to use a tack-reducing solvent only on non-print areas of an ink roller, of transfer of ink from one ink roller to another, or any motivation to combine the Blim and other references, it is the examiner's position that Dufour and Rebel together teach all of this as discussed in the above rejection of claim 1. Further, in response to the applicant's argument that Blim is not relevant, it is the examiner's position that Blim is relevant, as Blim teaches a type of solvent for an ink.

21. In response to applicant's argument of rejection of claim 10 under 35 U.S.C. § 103(a) over Dufour et al. in view of Rebel et al and De Marchi et al., that there would be no way to predict from the references the results obtained, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

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Conclusion

22. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Endisch, U.S. Patent 6,378,427, teaches that evaporation of solvent from ink increases its tack, and this increase in ink tack increases the danger of web breaks due to the adhesiveness of the ink, which causes the web to stick to the cylinders.

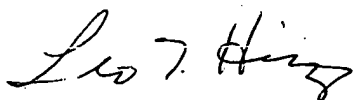
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo T. Hinze whose telephone number is (703) 305-3339. The examiner can normally be reached on M-F 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (703) 305-6619. The fax phone numbers for

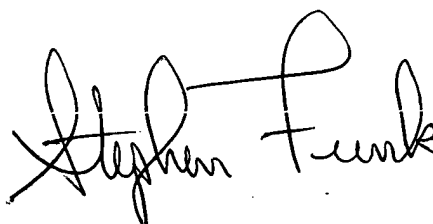
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the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0952.



Leo T. Hinze
Patent Examiner
AU 2854
March 20, 2003



STEPHEN R. FUNK
PRIMARY EXAMINER